

REMARKS

Claims 1-25 were pending in this application.

Claims 1-25 have been rejected.

No claims have been amended.

Claims 26 and 27 have been added.

Claims 1-27 are now pending in this application.

Reconsideration and full allowance of Claims 1-27 are respectfully requested.

I. OBJECTION TO SPECIFICATION

The Office Action objects to the specification as failing to include the serial number and filing date of a related patent application. However, the Applicants previously amended paragraph [001] of the specification to include the serial number and filing date of the related patent application. (*See 02/22/05 Amendment and Response to Office Action, Page 2*).

Accordingly, the Applicants respectfully request withdrawal of the objection to the specification.

II. REJECTION UNDER 35 U.S.C. § 101

The Office Action rejects Claims 1-25 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the Office Action asserts that the claims “do not produce any tangible result” and that the practical application of the claimed invention “cannot be realized until the determined probability is conveyed to the user.” (*Office Action, Page 2, Section*

3).

The Office Action suggests that something must be “output to a user” or “stored for later use” in order for the claims to recite patentable subject matter. This rejection under § 101 is unfounded and completely without basis in statutory or common law. The Federal Circuit has held that a process claim that applies a mathematical algorithm to “produce a useful, concrete, tangible result without pre-empting other uses of the mathematical principle, on its face comfortably falls within the scope of § 101.” (*AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358, 50 U.S.P.Q.2d 1447, 1452 (Fed. Cir. 1999)). There is no requirement of “outputting” or “storing” under the law. The Office Action appears to be applying a “technological arts” test. This test has been rejected by the Board of Patent Appeals and Interferences in *Ex Parte Lundgren* (Appeal No. 2003-2088, decided October 2005).

Moreover, the claims in this case are directed to subject matter that produces a “useful, concrete, and tangible result.” The claims recite subject matter that has utility, meaning the claimed invention is useful (and there is no “lack of utility” rejection). The claims also recite an invention that provides a repeatable, predictable, or concrete result. In addition, the claims recite a tangible result, meaning the claims set forth a practical application (namely the determination of an overall probability of a valve defect).

The Office Action asserts that the claims are directed towards “an algorithm for determining an overall probability of a valve defect rather than a practical application of the algorithm in the real world.” It appears that the Office Action is taking an extreme and unjustifiable narrow view of the phrase “practical application.”

An algorithm for determining the overall probability of a defect in a valve is clearly a “real world” application of the claimed invention. This is not simply a recitation of an abstract mathematical formula. The claims set forth a defined sequence of steps or functions that can be used to determine the overall probability of a defect in a valve. In other words, an overall concept (which involves some mathematical operations) is being applied to a specific practical application (the determination of a probability that a valve is suffering from a defect), unless the Patent Office takes the position that “valves” and “valve defects” are simply abstract ideas and not a “real world” application.

The claims recite subject matter that provides a useful, concrete, and tangible result. Unless and until the Patent Office establishes that valves and valve defects are abstract ideas and therefore cannot represent a “practical application” of the claimed invention, the Patent Office cannot meet its burden of establishing that the claims are directed to non-patentable subject matter.

Accordingly, the Applicants respectfully request withdrawal of the § 101 rejection and full allowance of Claims 1-25.

III. NEW CLAIMS

The Applicants have added new Claims 26 and 27. The Applicants respectfully submit that no new matter has been added. At a minimum, the Applicants respectfully submit that Claims 26 and 27 are patentable for the reasons discussed above. The Applicants respectfully request entry and full allowance of Claims 26 and 27.

IV. CONCLUSION

The Applicants respectfully assert that all pending claims in this application are in condition for allowance and respectfully request full allowance of the claims.

SUMMARY

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckbutrus.com*.

The Applicants have included the appropriate fee to cover the cost of this AMENDMENT AND RESPONSE. The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK BUTRUS, P.C.

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